

Solid State Portable Headlight System

REF 46070, 46072, 46074, 46076

46070R, 46072R, 46074R, 46076R



Symbol Descriptions

Attention: Consult user’s Manual for additional information

Double Insulation

INTENSE LIGHT: Lamp is bright. Do not stare at the lamp when in use. **May be harmful to eyes.**

Lamp On

Lamp Off

Warnings & Cautions

ATTENTION: Read Operating Manual for Warnings, Cautions, and Instructions for Use.

IPXØ: Not protected against the ingress of water.

WARNING: Solid State Portable Headlight is not suitable for use in the presence of a flammable anesthetic mixture with air or oxygen or nitrous oxide. An explosion may result.

INTENSE LIGHT: Lamp is bright. Do not stare at the lamp when in use. **May be harmful to eyes.**

USE ONLY: Solid State Portable Headlight Power Source/Battery Charger and rechargeable battery pack supplied by Welch Allyn.

There are no user-serviceable parts inside the device except the rechargeable batteries and headband. Contact the Authorized Service Center listed at the end of this document for further assistance.

Guidelines for the safe use of the Solid State Portable Headlight

General practices to minimize risk of harm to the skin from optical radiation hazards include: minimizing illumination intensity at the tissue examination site, minimizing exposure times, and taking additional precautions when skin sensitivity has been altered through tissue trauma or the use of anesthesia. General good practices to minimize risk of harm to the eyes from optical radiation hazards include: Avoiding looking at bright light sources and their reflections, and protect eyes where normal pupil sizes and aversion responses are not present.

Introduction

Thank you for purchasing the Solid State Portable Headlight by Welch Allyn, the worldwide leader in illuminated medical diagnostic instrumentation. By following the use and care guidelines supplied in this owner’s manual, you will enjoy years of dependable, trouble-free service from your new headlight.

This headlight is designed to meet the various needs of a physicians’ office, hospital environment, and wherever compact, portable, direct illumination is critical.

Components

Standard Parts List

Solid State Portable Headlight and Power Cord/Charger

Rigid Headband model:
46070R (Domestic)
46072R (European)
46074R (U.K.)
46076R (Australia)

Terrycloth Headband model:
46070 (Domestic)
46072 (European)
46074 (U.K.)
46076 (Australia)

Accessory Parts List

Model 05232-U Soft Case

Model 49642 Soft Terrycloth Headband – case of 10

Model 72270 Rechargeable Battery

Replacement Parts List

When ordering replacement parts for your Solid State Portable Headlight, please use the following numbers



Direct Power Source/Charger:
Model 74170 Domestic
Model 74172 European
Model 74174 U.K.
Model 74176 Australia

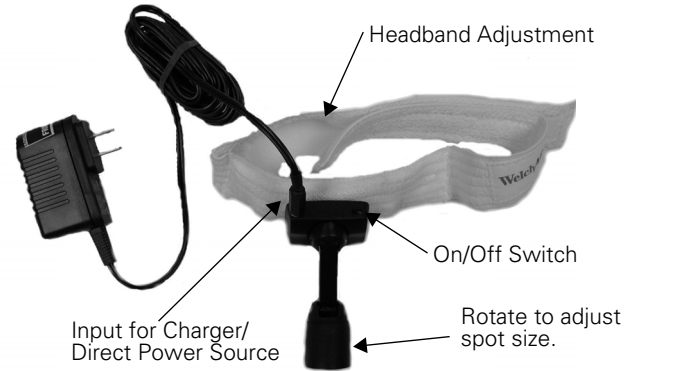
Set-up and Operation

Instructions for Use

The Solid State Portable Headlight consists of a Portable Headlight with soft terry cloth or rigid headband and a charger/direct power source. The Solid State Portable Headlight is designed to operate off the battery or direct power source. The headlight is provided fully assembled to operate in the portable operation mode. **All headlights are shipped with the batteries discharged.** Charge the batteries prior to use. Once the unit is charged, turn the power switch, located at the top of the luminaire, to the on position. To operate the headlight using the direct power source, insert the charger/direct power source (REF 74170) into the input port located on the top of the luminaire (see photo below). To charge the battery pack, connect the charger/direct power source (REF 74170) into the top of the luminaire (see photo below). To adjust the spot size, rotate the front section of the luminaire.

Use the Solid State Portable Headlight to provide illumination while performing a number of activities in the physician’s office, hospital, or emergency environment such as minor suturing, general exam, and foreign body removal.

NOTE Follow the assembly instructions listed below and the corresponding photographs.



Maintenance

Each month examine cords and connections. The user can perform battery and/or headband replacement on an as needed basis. Return the unit to an authorized Welch Allyn Technical Service Department or distributor for additional servicing. See “Service and Warranty Information” section.

Battery Charging

The fully drained battery will reach a 90% charge retention in approximately three hours of continuous charging. This is approximately 25% longer if the charging is happening at a temperature less than 15° C. Proportional usage will require a proportional charge time such as if the product is used for 15 minutes, charge the battery for 45 minutes to reach a 90% capacity. Overnight charging brings the battery to its 100% full capacity.

Charging the unit while operating will significantly increase the charge time to over 12 hours to obtain a 90% charge level.

This battery pack does not exhibit any memory problems that exist with NiCad batteries. However, like other products where batteries are used, remove the battery from the product when the product is in storage or when not in use for extended periods beyond 6 months. If the battery is left in the product for extended periods of time, the battery will drain down to an unusable level and require charging prior to use.

Battery Replacement



Headband Replacement



Cleaning (Recommended monthly)

NOTE Excess solution entering the luminaire assembly could damage internal components. Use caution to ensure cloth is not saturated with solution.

- Unplug the unit prior to cleaning.
- Wipe down the entire luminaire with a cloth slightly dampened with a mild solution of detergent. The terry cloth headband is removable and is machine washable.
- Do not operate the light until the light is thoroughly dry.

NOTE Do not sterilize the unit.

CAUTION: Do not immerse in cleaning solutions.

Troubleshooting

Trouble Area	Possible Cause	Corrective Action
No Light Output	Dead battery or battery not connected properly	Verify that the unit operates on direct power source. If yes, insure that the battery is connected properly; refer to the battery replacement section for instructions on connecting the battery. If the battery is connected properly, recharge or replace battery
Low Light Output	Low charge on battery	Verify that the unit operates on direct power source. If yes, recharge or replace battery

Specifications

Electrical

Ref Model	Input Voltage	Output Voltage	Leakage Current
46070	120VAC ± 50/60 Hz	5 volts vdc	<10 uA
46072	230VAC ± 50/60 Hz	5 volts vdc	<10 uA
46074	230VAC ± 50/60 Hz	5 volts vdc	<10 uA
46076	240VAC ± 50/60 Hz	5 volts vdc	<10 uA

